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Tanzania

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Summary Frame

Country summary: **Tanzania**

Country group	LMIC
% adults with a financial account (2020)	47%

ACCOUNT TO ACCOUNT R/T:

STATUS

Name of scheme/s	EMI-led scheme - Taifa Moja	Tanzania Instant Payment System (TIPS) - upcoming
Date of launch	Sep 2014, all key players went live Feb 2016	Upcoming
Scheme manager	Agreements rather than separate entity to manage scheme	Owned and operated by the BOT
Membership	6 MNOs	Banks and non-banks
% financial accounts included in scheme	100% of mobile money wallets	-

HIGHLIGHTS

Highlights from country:

- While it has been successfully in demonstrating that interoperability can increase transaction volumes, it has also highlighted several issues that other countries would need to take into considerations if they are looking to replicate the model. 1. Governance structure and the need for it to be strong at design stage. The fact that the scheme was not institutionalized may have curtailed continuity in knowledge and information transfers to subsequent managers from operators participating in the scheme. It is not clear if the involvement of the regulator in the governance structure would have made difference and to what extent this will influence the governance structure of TIPS. 2. Common infrastructure to improve operational efficiency and robustness of use cases and other functionality. While bilateral arrangements with no common infrastructure worked out well to move quickly, all experts agreed that further progress would have been achieved if a common switch existed and it is overdue.
- Business model remains important. While operators objectives did differ, they joined because it made sense for them. PSPs agreed on a receiver pays, no surcharge model.
- A regulator may not need to actively intervene in a market where market share is relatively equally split - collaboration between smaller players (forming a larger market share than the dominant player) combined with non-partisan facilitation could be key drivers.
- Operators' political will and strategic buy-in is fundamental to expansion of use cases beyond P2P. Besides establishing scheme rules for other use cases such as CICO interoperability, lack of strategic buy-in from operators has held back implementation of these use cases in Tanzania.
- Emi-led interoperability may present evidence that interoperability may not significantly alter market share of players in terms of subscription as much usage. It may contribute to overall growth of the shared pot (values and transactions) and increase usage of some players more than others.

INTEROPERABILITY JOURNEY:

- Emi-led with non-partisan facilitation: The mobile subscriber base was more or less equitably split, but half the mobile money base was with one player. The initiative was championed by the smaller mobile money providers and took about 2 years to establish. The larger player joined about 1.5 years later.
- No regulatory intervention to correct market structure: The 2015 NPS Act regulations provide for non-exclusive use of agents 'as a reaction to Kenya's woes rather than a raised industry concern at the time' GSMA (2014).
- NPS regulation however does guide interoperability. The draft Mobile Payments Regulations (passed in 2013 according to AFI), require mobile payment service providers to implement a mobile payment service that is able to provide interoperable services with other mobile payment service providers at various level of interoperability suitable to the market demands".
- See the stipulated objectives behind the scheme in the next slide

Calibrating the role of **public sector in IO**

BFA GLOBAL

Funding & implementation role

Policy role

In setup and beyond	0: None	1: Participate/ co-fund	2. Incubate only	3: Sole fund
0: Endorse	 **0. Endorse.** BOT supported the process including providing a letter of no objection/endorsing a market-led interoperability approach, while receiving updates from stakeholders meetings. **0. No funding:** BOT did not contribute towards any of the expenses incurred in setting up the scheme			
1: Catalyze 1--Encouragea				At this level, regulator applies moral suasion but takes no direct action
2: Catalyze 2 -Actively convene & participate				Regulator also takes direct steps, such as studies, convening or threats
3: Mandate				Mandate could include 1 or more of: • Required connection to central switch • Required participation in a scheme • Method and/or level of interparty fees set
Oversee				Typical role may be oversight, but this may not apply to non-prominent non-prominent Retail Payment Systems

IFC initiated and facilitated the initiative with support from the regulator, BMGF and FSDT. Tigo also played a key role in acting as an industry champion. With regard to funding, each MNO met its own integration-related costs, and IFC coordinated an investment to advertise the scheme through a centralised marketing campaign under the Taifa Moja (One Nation in Swahili) banner.

Country Interoperability **summary frame**

Regulator endorsed the market led approach and obtained updated during development of the scheme which has proved to be successful - 30% of all P2P transactions occurring off-net 2 years after 4 key members joined. Recent study shows that interoperable transfers represents 32% of all P2P transfers in the market.

A2A or CICO		PUBLIC POLICY ROLE IN INCEPTION					PUBLIC ROLE IN IMPLEMENTATION			
		0. Endorse	1. Catalyze 1	2. Catalyze 2	3. Mandate	None	0. None	1. Co-fund	2. Incubate	3. Fund and own
OUTCOME	0. Uncertain /too early									
	1. Below expectations									
	2. In line with expectations									
	3. Above expectations									

Setup and Ownership

Summary frame: **A2A interoperability stipulated objectives**

1 Regulator wanted to:

- Enhance financial deepening and financial inclusion.
- Improve effective oversight, which they are still struggling with and want to introduce a switch to improve oversight of cross-net transactions.
- Enhance competition and innovation on product differentiation and customer experience.

2 Mobile money providers wanted to:

- Respond to a demand for wallet-to-wallet transactions between e-money issuers - a significant proportion of transfers across providers was already taking place via a voucher option.
- Sustain transaction growth - the growth trend for transactions volume and value was declining.
- Create a larger addressable market for digital payments: because interoperability would increase the utility of digital payment solutions for end-users, creating network effects that bring an increasing number of consumers into the system.
- Increase digital liquidity and barriers for transacting digitally by allowing customers to maintain value in digital form by reducing cash out which was necessitated by the voucher option. Operators (Tigo) wanted to leapfrog card payments.
- Facilitate the sharing of payment infrastructure, particularly for small players to be able to serve in the areas where they didn't have an agent network. For instance, if a Tigo customer sent money to a Vodacom customer in an area where Tigo doesn't have agent network, the recipient was fine because they no longer need to cash-out from a Tigo agent

3 Development agencies wanted to:

- Promote financial inclusion.
- Facilitate effective connections and avoid some mistakes done in interconnecting banks, i.e., smaller banks in Tanzania can't send money to larger banks or use their debit cards on larger banks' ATMs.
- Drive transaction volume by standardizing prices so customers do not have to choose between on-net and off-net transactions.

Source: BFA interviews (2020)

A2A interoperability: **Taifa Moja Interview Highlights**

BFA GLOBAL

BACKGROUND: Initiative was industry led with development agency facilitation. Elements such as market maturity, almost perfect competition, existing demand for off-net transactions, regulatory sign-off among other factors contributed to the takeoff of Tanzania's mobile money interoperability scheme.

- **Market maturity**: Market had foresight to project a market saturation, which they wanted to avoid by becoming interoperable. Annual growth rates in transaction volumes and values were declining from about 702% and 529%, respectively, in 2008 to about -82% in 2013. A significant number of off-net transactions were already taking through inefficient means.
- **Competition**: The almost equitable distribution of market share made it easier to start interoperability conversations among operators. Although Vodacom had majority mobile money market share, followed by Tigo and then Airtel, the smaller players represented a larger proportion of the market share when combined.
- **Size of the country combined with limited agent infrastructure** made cash out transactions in remote areas a challenge. The objective of reducing cash-out transactions was appealing to operators and allowed for an easier interoperability conversation.
- **Champion:** Tigo was the first operator to push hard for interoperability. Tigo started conversations with other operators before IFC's involvement and started testing the idea of interoperability before any commercial agreements were signed off.
- **Independent facilitator**: There was a lot of competition among operators at the time and they didn't trust each others' motives to interoperate. They needed a neutral third party to help them take off their competitive hats and work together to build an interoperable ecosystem. IFC came in to moderate the conversation. IFC's facilitation, with BOT's endorsement of a market-led approach, and funding from FSDT unlocked the conversation and created a platform for the operators to come together and have structured conversations on implementation of mobile money interoperability.
- **Regulatory environment**: Openness of the regulator to "test and learn" and adopting a market-led approach in close collaboration with other partners (development partners - IFC, FSDT) created a conducive environment for the initiative to take off.
- "***Connected thinking, coordinated action***" was at play - stakeholders (operators, regulators and development partners) had different agendas but found ways to achieve their specific agenda through working together.
- **Political will** from operators to get interoperability done.
- **Consensus around which use case to solve** - all operators were interested in solving P2P interoperability use case first.

Source: BFA interviews (2020)

A2A interoperability: **Taifa Moja Interview Highlights**

GOVERNANCE: The scheme has a representative governance structure but some agreements are no longer adhered to due to lack of proper institutionalization

- All participants contribute equally, each MFSP having a single vote, irrespective of the size and transaction volume of the MFSP. A 75% majority is needed to make a change to the agreed standards.
- The governance structure is articulated, i,e., the P2P Governing Body (PGB) must be composed of representatives of MFSPs participating in P2P. The MFSPs will elect representatives. The Chairman will serve for a one-year period and other representatives will serve a two-year period. The PGB should keep an up-to-date list of MFSPs and a primary and secondary contact person at each and so facilitate communication between MFSPs.
- However, the scheme was not properly institutionalized and as a result some of agreements are no longer observed.

BUSINESS MODEL: The scheme rules stipulate no-surcharge should apply for off-net transactionsbut such is not the case. Wholesale inter party pricing throuId be bilaterally agreed to comply with competition policy

- Price discrimination between on-net and off-net transactions is prohibited - no consumer surcharge. However, some providers are currently charging higher off-net prices for certain bands against agreed rules. Recipients of off-net transaction are not charged for the off-net transactions.
- Wholesale inter party pricing: To comply with competition policy and avoid any risk of collusion, it was decided that wholesale prices for wallet-to-wallet transfers would be negotiated bilaterally. On average, the bilaterally agreed interchanges are on average equivalent to the cash-out transaction fees received by the sender. They are paid from the receiving provider to the sending provider.
- Infrastructure/switch pricing: No switch fees. Each provider meets the cost associated with maintaining bilateral agreements/connections

A2A interoperability: **Taifa Moja Interview Highlights**

PERFORMANCE: Bilateral arrangements were effective in achieving interoperability within short time through APIs, however lack of progression to common infrastructure and lack of strategic alignment may have curtailed progression to additional use cases.

- Interoperability approach with bilateral arrangements was adequate to get started. It gave operators an opportunity to get used to working with each other and underscored the importance of a central switch to minimize operational inefficiencies such as the need to prefund accounts.
- Due to such inefficiencies, the interoperability scheme has failed to meet some of its long-term objectives. For instance, CICO interoperability and merchant payment (P2B) interoperability were not actualized despite being in their roadmap. P2B and other transactions are currently conducted but through aggregators and it would get complicated to add aggregators to the bilateral arrangements that operators currently have. Besides, aggregators have their own bilateral arrangements with operators. Also, having more collection accounts for business is a competitive advantage for an operator since they make revenue per transaction collected. Operators do not want others to access their collection accounts unless a commercial model is worked out to split commissions fees. With a switch, collection accounts won’t be negotiated with each individual operator but would be included in a basket of services for all operators connected to access the switch.
- Apart from the inefficiencies resulting from the interoperability model of using bilateral connections and pre funded accounts, a lack of political will and strategic alignment has also affected the evolution of these other use cases.

Source: BFA interviews (2020)

A2A interoperability: **Taifa Moja Interview Highlights**

Common Infrastructure

- However, going forward, industry players expressed that a switch is need to remove some of the operational inefficiencies, such as regular reconciliation of pre funded accounts). They consider that a switch is the most efficient way to process payments yielding to the following benefits for respective stakeholders:
    - Operators: A switch would have created a more efficient clearing and settlement system (multilateral) and improved liquidity management of the participating entities.
    - Regulators: Improved oversight and support innovation around payments.
    - Ecosystem: “A switch would have expanded use cases beyond P2P - a switch itself is a business so a switch operator wouldn’t want to limit it to just P2P transfers - they would certainly consider interlinking with bank accounts, merchant payments, data center for credit referencing, etc. That is, the avenue for financial services and deepening would have certainly increased, governance structure withstanding!...”

> The regulator is championing the upcoming Tanzania Instant Payment System (TIPS), but it is not yet clear whether the regulator would own and operate the switch, or hand it over to a third party player or the FSP players to operate

Source: BFA interviews (2020)

A2A interoperability outputs - **Competition**

Fairly competitive mobile money instant payment interoperability

- No fixed pricing for retail or wholesale – free market, through consumer prices have been trending upwards.

Current competition issues :

- Lack of clearing and settlement infrastructure interoperability - settlements are done bilaterally through pre funded accounts.
- Scheme eligibility and access to payment infrastructure is not favourable to all operators. According to the rules eligibility is limited to Mobile Financial Services (MFS) meeting the following criteria:
    - issuing e-Money;
    - holding an e-money issuer license from the relevant regulatory authority; and
    - with a commercial agreement for interoperable P2P service with at least 75% incumbent participants (if any).

These limit the participation of small players.

- Banks are not part of the scheme.

BOT is addressing some of the issues::

- Intervened to allow TTCL and Halotel to interoperate.
- Developing an Instant Payment System switch (TIPS), centralizing clearing and settlement processes to improve efficiency and oversight.

Source: BFA interviews (2020)

Image Source: backtotanzania.wordpress.com

CICO interoperability: **Interview Highlights**

- **What is the dominant mode of 'interoperability'?**
    - Multiple acquiring and aggregators provide a workaround.
    - Although agents are essentially offering the same service through duplicated efforts by MNOs, CICO interoperability has not been achieved.
    - Aggregators bring different operators' accounts into one wallet. While this is a good work around in absence of agent interoperability, it increases transaction costs for consumers. Stakeholders anticipate that if this service was provided directly by providers through a switch, it is likely to lower the aggregation cost that consumers are currently experiencing.

- **Has the issue of CICO interoperability been discussed or considered?**
    - Agent interoperability was part of the roadmap for the mobile money interoperability scheme. Business rules and interchange models were agreed upon (as per Agent Wallet to Agent Wallet, Cash In, Cash Out) but strategically the market didn't want to move forward with it.
    - According to the BOT 2019 annual report, the bank is working with stakeholders to facilitate interoperability at the level of agents of mobile financial services.

- **What are the forces pushing towards or away from agent interoperability?**
    - Agents are an operator's competitive advantage. The ability to provide widespread mobile money services hinges on the breadth/size of operators' agent network. Ensuring agents maintain float/liquidity is a big operational expense to operators and they wouldn't want to incur this cost if they are not sufficiently compensated to maintain float.
    - Regulation does not enable agent interoperability because a provider has no visibility on transactions processed at his/her agents on behalf of customers of other providers, yet operators are liable for their agents' misconduct.
    - Providers fear that agents interoperability would encourage over the counter transactions which would deplete revenue from P2P business. Individuals are likely to use agents and deposit directly into recipients accounts instead of transferring from individual wallet to another wallet.
    - The business case for agent interoperability is very weak unless other MNOs are willing to compensate the first mover's investment in agent onboarding.

- **Has the issue of CICO interoperability been discussed or considered?**
    - No

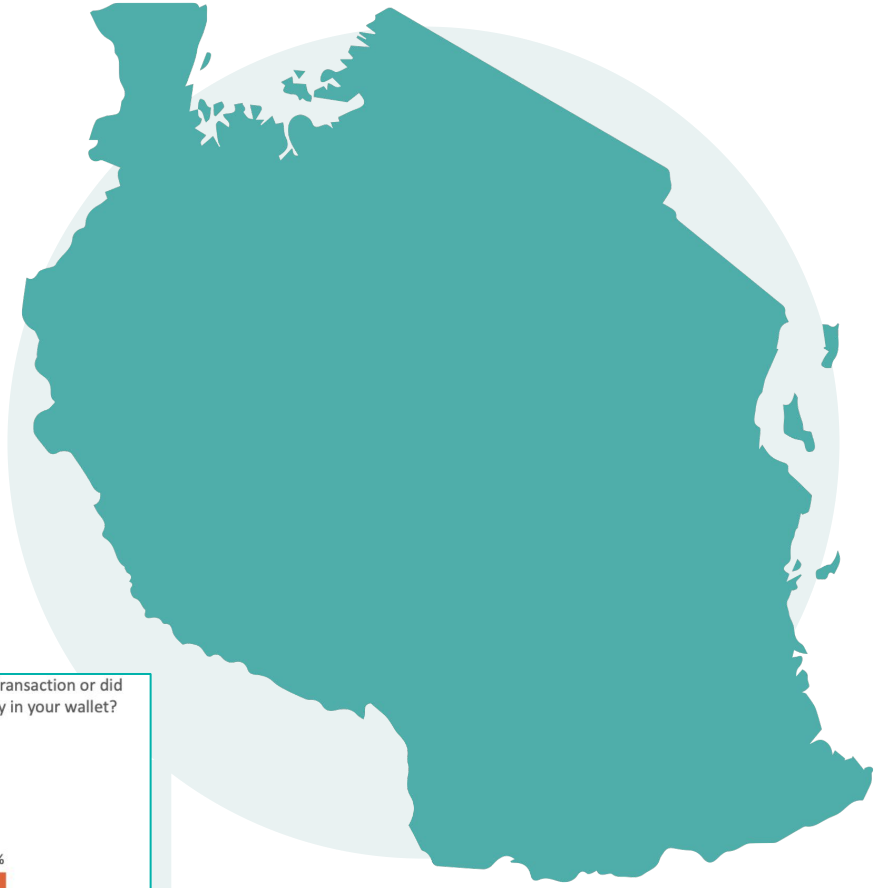
Source: BFA interviews (2020)

Answers to Research Questions

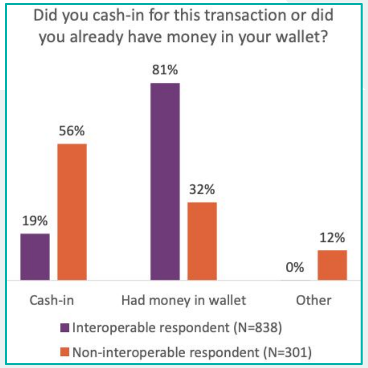
Research question 1: Why interoperability? Is interoperability necessary for full financial inclusion?

The Tanzanian case provides evidence that interoperability results in deepening usage of DFS, but provides fails to draw a linkage to inclusion of the excluded populations.

- Financial inclusion was not an objective that operators were aiming for when they started conversation around interoperability. The conversation on financial inclusion was introduced once the regulator and development partners (IFC and FSDT) got involved.
- Interoperability proved to be important for driving further growth in P2P transactions volume in Tanzania, but its impact on financial inclusion largely depends on how financial inclusion is defined.
    - If defined by by usage, there has been an increase in mobile money active users and their transaction volumes, but this growth in not only driven by interoperability as bill payments and bulky disbursement are also growing exponentially in addition to interoperable P2P.
    - If defined by access, it is even more difficult to establish the proportion of increase in transaction volume that resulted from increased usage from inclusion of customers that were previously excluded.



According to a survey conducted by BFA on behalf of CGAP, interoperability proved to do more to integrate digital into their daily lives, they kept larger wallet balances and transacted more frequently.



Research question 2: What are the effective policy levers for achieving interoperability success?

i. The degree to which the lead controls the dance (and, by implication, "controls" the followers) depends on a number of factors such as the social context in which the dance exists, the experiences and personalities of the follower etc.

Even in mature competitive markets, there is still need for a facilitator that can jump-start/ lead the move towards interoperability, and guide the schemes to realise their potential and continue to meet the needs of the market over time.

- Letting the industry grow while encouraging competition may ultimately result in industry led solutions. In Tanzania, a competitive landscape generated demand for interoperability. That coupled with having an industry champion in Tanzania (Tigo) meant that the regulator did not have to weigh in heavily on the formation of the scheme. The regulator endorsed the formation of the scheme and allowed operators to take a market-led approach. The regulator received updates on the progress of the discussions but did not interfere.

ii. It is necessary that a lead is in place to provide the 'Picture Frame'; which is the space in which the dance happens.

- Nonetheless, IFC prompted the industry conversation, conducted market research and with the support of FSDT and the regulator, provided a platform for operators to have structured conversations and define rules for interoperability.

Source: BFA interviews (2020)

Research question 2: **What are the effective policy levers for achieving interoperability success?**

iii. It is critical for the lead to clearly direct or orchestrate the dance; without the lead's guidance, the dance has only basic steps cannot progress past its base components.L

- The scheme took off and served the needs of the industry, however, 6 years down the line:
  - Implementation of the outlined road map has not progressed beyond P2P use cases, and
  - The wheels seems to be coming off, as:
    - Scheme rules are no longer adhered to possibly curtailing benefits to end customers. For instance, consumer pricing of off-net and on-net transactions, which were supposed to remain the same for a specific provider are no longer upheld or enforced.
    - Moreover, it appears that the industry did not institutionalize the governance structure effectively: many changes that have happened in the scheme have not been well documented and scheme knowledge has been lost especially because of high employee churn in the industry.
- Interoperability may have been more effective if there was a lead to guide the industry players along the implementation journey.

Source: BFA interviews (2020)

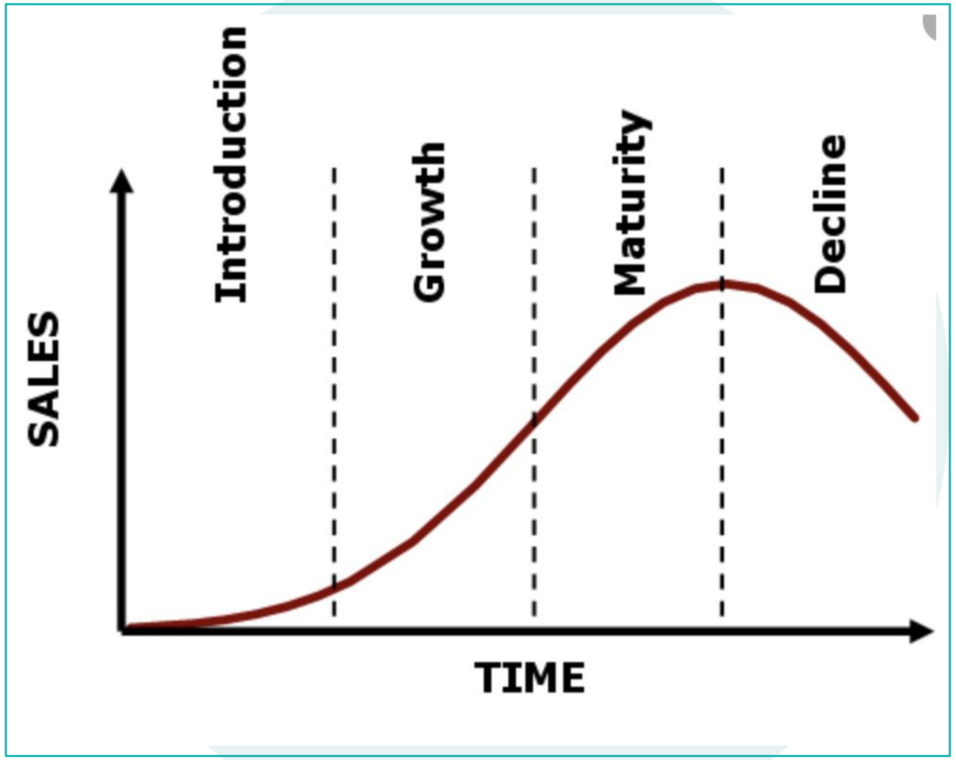
Research question 3:

When should the foundation/ policy makers advocate for interoperability - from the beginning or let it evolve over time?

Development agencies and regulators should understand the stage of market development and assess whether the industry is ripe for implementation of interoperability. However, foundations should be laid from the beginning and competition encouraged as the market matures.

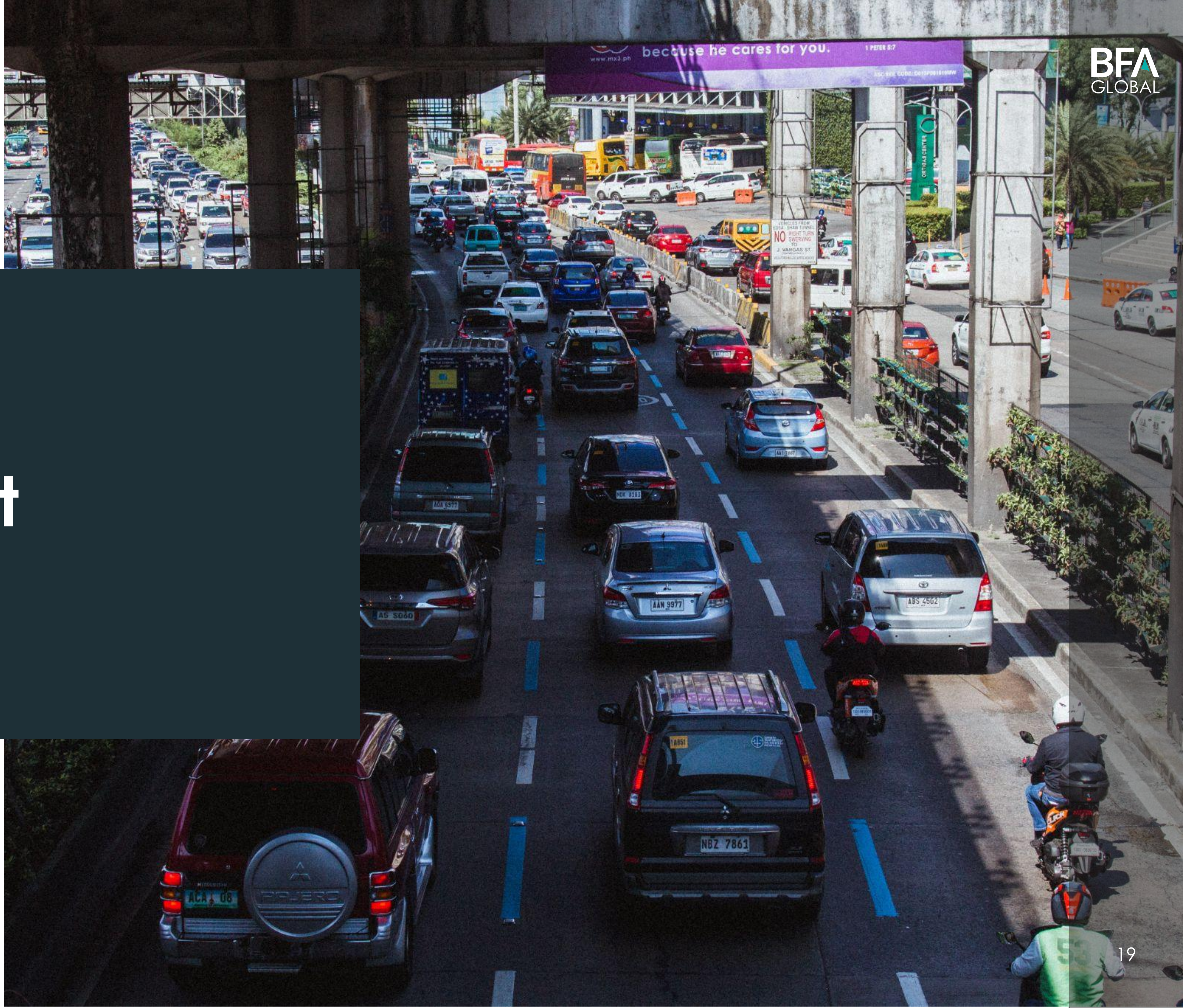
- Letting the industry grow while encouraging competition may ultimately lead to industry led solutions for driving interoperability. Tanzania's mobile money interoperability implementation journey commenced when the market was relatively mature and had developed into a competitive landscape, 6 years after mobile money was first launched. This formed the foundation for a market led approach for pursuing interoperability.

- However, from the very beginning, regulation required that licensed mobile payment service providers implement a mobile payment service that is able to provide interoperable services with other mobile payment service providers at various level of interoperability suitable to the market demands (AFI, n.d).

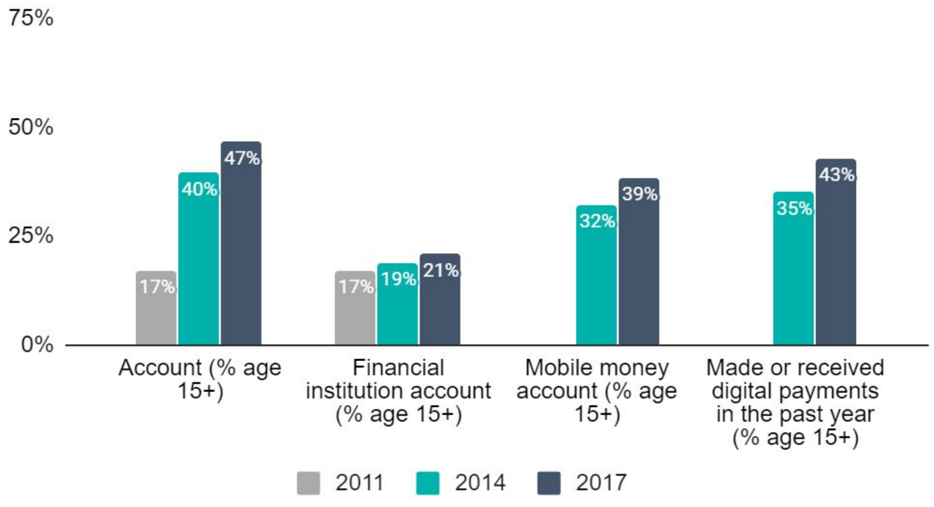


Source: BFA interviews (2020)

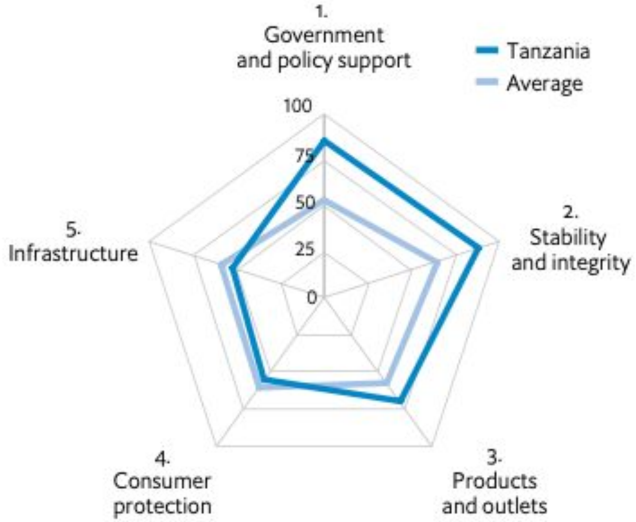
Context



Tanzania context: **Financial inclusion, mobile money market share & regulatory environment**



Source: FINDEX 2017



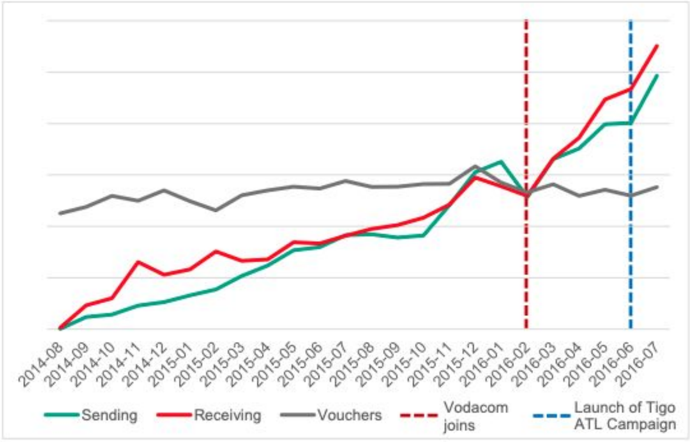
Rank	15
Score	62
Average score	52

Source: EIU Microscope 2019

Telecom players	Voice subscriptions (Sep 2016)	Telecom subscriptions	**Mobile money players**	Mobile money market share (Sep 2016)	Mobile money market share (June 2020)
Vodacom	31%	31%	**M-Pesa**	41%	39%
Airtel	26%	27%	**Airtel Money**	22%	20%
Tigo	30%	26%	**Tigo Pesa**	36%	30%
Zantel	3%	2%	**Ezy Pesa**	1%	1%
Halotel	8%	13%	**Halopesa**		7%
	1%	1%	**TTCL**		3%
		0.002%	**Smile**		0

Source: TCRA 2016, 2020

Figure 2: Tigo interoperable transaction growth by volume (Aug 2014 to Jul 2016)



Note: The red dotted line refers to the month Vodacom joined the domestic interoperability solution. The blue dotted line refers to the month Tigo Pesa launched ATL campaigns.

Source: GSMA 2016

A2A interoperability timeline

Industry-facilitated scheme with external resourcing which steadily progressed through a step implementation of infrastructure and agreements, as needed and as the case was proven. However, P2P interoperability was the end point.

2008: Mobile money was first launched in 2008.

2011: By 2011, e-money issuers in Tanzania recognized a demand for wallet-to-wallet transactions between providers. Many customers maintained multiple accounts or made use of token-based transactions (OTC) to perform transactions between providers. With three competitively positioned EMIs of complementary strength, the market appeared primed for interoperability (CGAP 2020). The market's mobile and mobile money subscriber breakdown was roughly 35 & 53 percent Vodacom, 31 & 13 percent Airtel, 31 & 18 percent Tigo, and 12 percent Zantel (CFI, 2014).

2012: IFC held discussions to assess stakeholder willingness. With backing from the regulator, BMGF and FSDT, IFC (as a neutral participator) convened the industry in Sep 2013 to propose objectives and determine a way forward (CGAP 2020).

Sep 2014: The four major EMI participants agreed a set of scheme rules to govern the arrangement in September. Agreements were partially driven by Tigo, who was a strong champion of the scheme from the beginning, while the IFC process created the conditions for a collaborative approach. Participants opted not to invest in a separate legal entity to manage the scheme. Instead the scheme would be governed through a set of common rules signed by participants. Tanzania became the first country in Africa to introduce interoperability in mobile money services (CGAP 2020). **Zantel joined Tigo and Airtel in Dec 2014. Vodacom joined in Feb 2016** (Businesswire 2016).

Aug 2014: Tigo and Airtel experimented using an aggregator (Selcom) integration for three months before transitioning to a bilateral model after they were more confident with the benefits of A2A interoperability. They then publicly launched their integration in August 2014 (GSMA 2015).

Feb 2016: Though there were challenges, such as Vodacom not signing the multilateral agreement and bilateral agreements, serving as a barrier for newer entrants (CGAP 2020), after just over two years since launching, the service appeared an overwhelming success, with 30% of all P2P transactions occurring off-net (CGAP 2018).

Feb 2019: The Bank of Tanzania has launched the Tanzania Instant Payment System (TIPS) project, a single platform to connect different payment systems providers – both bank and non-banks to facilitate instant payments. The new switching infrastructure owned and operated by the regulator (Tanzania Invest 2019).

Jan 2019: Selcom launched Qwiksend which allowed customers to make interbank fund transfers, in real-time, through the various digital access channels that are available to them countrywide (Selcom 2020). It then launched shared-agent Agency Banking service in Nov 2019, targeting 35 banks in Q1 2020.

CICO country **timeline**

Proactive action by BoT and competitive markets led to large agent force

2008: Vodacom (M-Pesa) and Zantel (Z-Pesa, renamed EZY Pesa in 2012) launched the first mobile money services in Tanzania. This followed an amendment in 2006 of the 'Bank of Tanzania Act' to give the BoT power to oversee and regulate non-bank entities providing payment services and issuance of Guidelines for 'Electronic Payment Schemes' in 2007 by the BoT in collaboration with Tanzania Communications Regulatory Authority (Pathways commission 2019).

2009 & 2010. Airtel (Airtel Money) and Tigo (Tigo Pesa) followed in 2009 and 2010 (Pathways commission 2019).

2012. Selcom launched POS network and aimed to roll out 4,000 agents to facilitate bill payments and CICO for all mobile money operators on the POS (GSMA 2012). Selcom had about 18,000 agents by Jul, 2019 (Selcom 2019).

2015: Keen to avoid the market dominance seen by Safaricom in Kenya, the BoT sought to open up the market introducing a 'non-exclusivity mandate' to allow agents to work for more than one financial service provider (NPS Act 2015). This led to a huge increase in the number of agents across the country, which in turn improved accessibility for customers, as well as boosted profits for agents. By 2018 there were 398,094 mobile money agents, around 8 per 1,000 Tanzanians (Pathways commission 2019).

2019: There were 560,043 agents in total.

2020. According to the BoT 2019 annual report, the bank is working with stakeholders to facilitate interoperability at the level of agents for mobile financial services.

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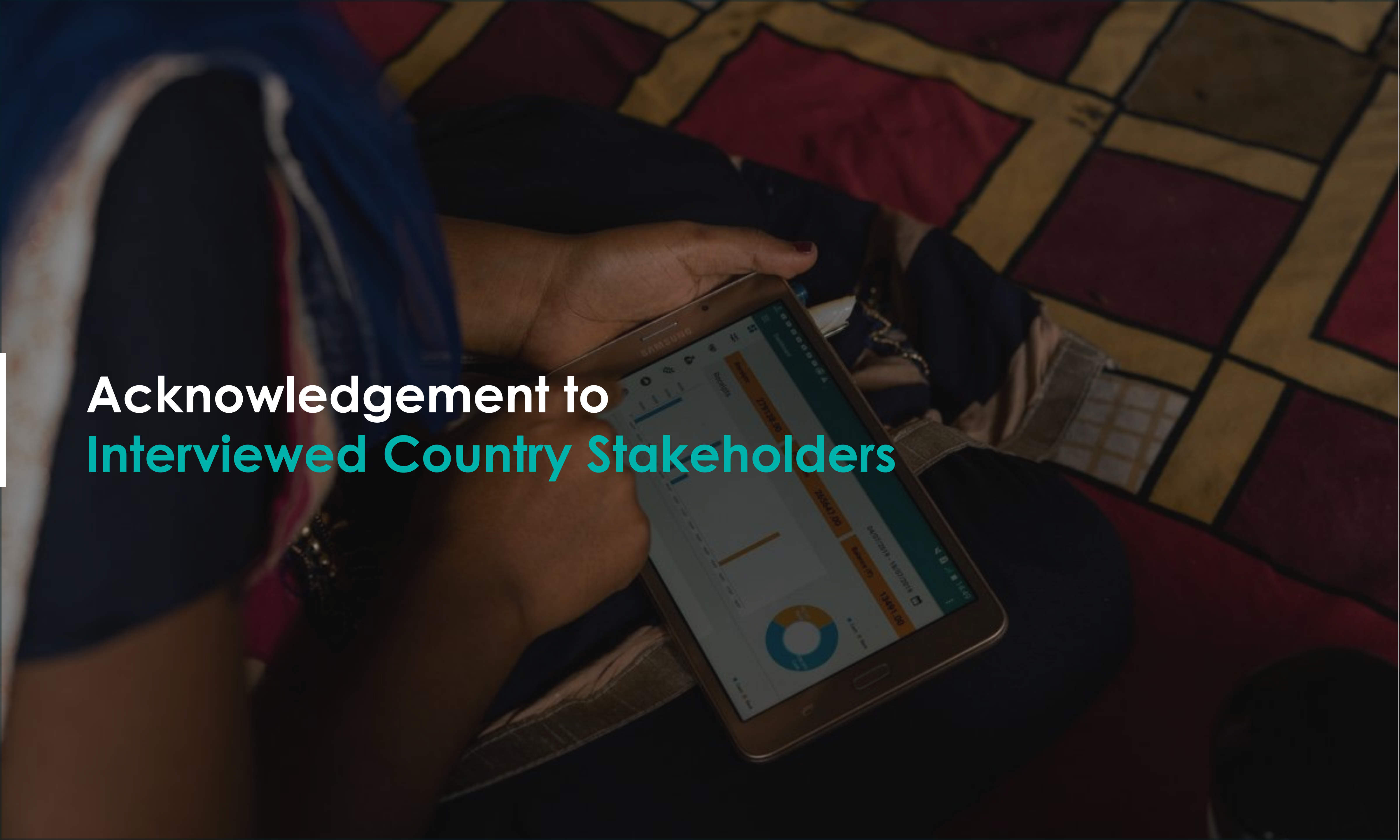

Acknowledgement to Interviewed Country Stakeholders

Acknowledgements to Tanzania Stakeholders:

Name	Position	Organization
Regulators		
Kennedy Komba	Advisor, National Payment Systems Advisor	Bank of Tanzania
Participants		
Jacques Voogt	Former Chief M-Commerce Officer	Vodacom
Tariq Dhiyebi	Former Mobile Financial Services Manager	Millicom (Tigo)
Payment Experts / Other Ecosystem Players		
Martin Warioba	Former Senior Technology Analyst & Project Manager	International Finance Corporation (IFC)
Charles Niehaus	Former Scheme Implementation Consultant	International Finance Corporation (IFC)
Daniel Mhina	Head of Digital Finance	Financial Sector Deepening Tanzania (FSDT)
Innocent Ephraim	Advocacy Consultant, Head of Digital Finance, M-Pesa Product Manager	ModusBox, Financial Sector Deepening Tanzania (FSDT) (Previous Org.), Vodacom (Previous Org.)